

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior listings of claims presented in the application.

Claims 1, 2 (canceled).

Claim 3 (currently amended): A constant circulation resistance tube comprising: which is formed by coaxially inserting

a resistance adjusting rod coaxially inserted into a hollow capillary, said constant circulation resistance tube being configured for controlling and which can control a flow rate of gas circulating between an inner circumference of the hollow capillary and an outer circumference of the resistance adjusting rod by varying an insertion length of the resistance adjusting rod inserted into the hollow capillary in order to adjust [[adjusting]] a circulation resistance of the gas[.,.];

wherein the circulation resistance can be adjusted by varying an insertion length of the resistance adjusting rod inserted into the hollow capillary and can be fixed by fitting a separation preventing short tube configured for fitting to an outer circumference of the hollow capillary at an opening end in order to fix the insertion length of the resistance adjusting rod in the hollow capillary; and

a waste inflow preventing filter fitted to an opening of the separation preventing short tube for preventing waste materials from being introduced into the circulating gas.

Claim 4 (canceled).

Claim 5 (currently amended): A vacuum degassing apparatus for removing dissolved gas from liquid, comprising:

a vacuum vessel including a gas permeation diaphragm;

an exhaust vacuum pump; and

a vacuum control system, the vacuum control system including:

a controller for monitoring the inside pressure of the vacuum vessel using a pressure sensor, and controlling a voltage applied to a DC brushless motor on the basis of an output signal resulting from measurement of the inside pressure of the vacuum vessel by the pressure sensor to control the displacement of the exhaust vacuum pump; and

an air introduction device inserted in a vacuum exhaust path connecting the vacuum vessel to the exhaust vacuum pump for continuously introducing a controlled amount of air externally supplied into the vacuum exhaust path, wherein

gas dissolved in the liquid is isolated with the gas permeation diaphragm by reducing the inside pressure of the vacuum vessel by operating the exhaust vacuum pump, and by operating the controller to hold the degree of vacuum in the vacuum vessel constant.

Claim 6 (canceled).

Claim 7 (previously presented): The vacuum degassing apparatus according to claim 5, wherein the air introduction device comprises a constant circulation resistance tube which is formed by coaxially inserting a resistance adjusting rod into a hollow capillary and which can control a flow rate of gas circulating between an inner circumference of the hollow capillary and an outer circumference of the resistance adjusting rod by adjusting a circulation resistance of the gas, wherein the circulation resistance can be adjusted by varying an insertion length of the resistance adjusting rod inserted into the hollow capillary and can be fixed by fitting a separation preventing short tube to an outer circumference of the hollow capillary at an opening end.

Claim 8 (previously presented): The constant circulation resistance tube of claim 3, wherein the constant circulation resistance tube is configured such that the circulating gas flows along substantially the entire length of the resistance adjusting rod within the hollow capillary.

Claim 9 (canceled).